

County of San Diego  
Revised: July 26, 2002  
Reviewed: Spring 2003

**WASTEWATER PLANT OPERATOR TRAINEE**  
**WASTEWATER PLANT OPERATOR I**  
**WASTEWATER PLANT OPERATOR II**  
**WASTEWATER PLANT OPERATOR III**

**Class No. 007072**  
**Class No. 007071**  
**Class No. 007070**  
**Class No. 007069**

**DEFINITION:**

To perform technical duties related to the operation and maintenance of wastewater treatment plants, wastewater pumping stations, and potable water distribution systems; and to perform related work.

**DISTINGUISHING CHARACTERISTICS:**

Positions in these classes are allocated only to the Department of Public Works and are responsible for a wide variety of tasks which include skilled wastewater treatment plant operations, routine plant maintenance, laboratory and routine housekeeping duties at a treatment plant. Wastewater Plant Operator is a technical class series requiring incumbents to possess certification as a Wastewater Treatment Plant Operators by the State of California Water Resources Control Board.

**Wastewater Plant Operator Trainee:** This is the entry and training level class of the Wastewater Plant Operator series. Under immediate supervision, incumbents learn to operate, maintain and repair plant equipment and acquire experience leading to state certification.

**Wastewater Plant Operator I:** This is the first working level in the Wastewater Plant Operator series. Under general supervision, incumbents possess a Grade I Wastewater Treatment Plant Operator certificate and operate and maintain facilities within their area of certification without immediate supervision.

**Wastewater Plant Operator II:** This is the journey level class in the Wastewater Plant Operator series. Under general supervision, incumbents perform the full range of facility operations and maintenance work. Incumbents must possess a Grade II or higher Wastewater Treatment Plant Operator certificate.

**Wastewater Plant Operator III:** This is the lead worker class in the Wastewater Plant Operator series. Under general supervision, incumbents provide technical guidance, training and leadership to lower class wastewater operators, and may supervise in the absence of the supervisor. Wastewater Plant Operator III incumbents must possess a Grade III Waste Treatment Plant Operator certificate and may be assigned responsibility for a geographical district. This class differs from the next higher class, Wastewater Facilities Supervisor, in that the latter is a first line supervisor responsible for assigning, reviewing and evaluating the work of subordinate staff and overseeing staff training.

**EXAMPLES OF DUTIES:**

Participates in the daily operation and maintenance of wastewater pump station tasks and in the operation and maintenance of all segments of wastewater treatment plant processes including primary, secondary, effluent disposal by percolation beds or spray irrigation, handling of solids by use of digester, drying beds, and landfill disposal; opens and closes valves manually or by remote control; operates mechanical equipment to regulate the flow and treatment of sewage or sludge; starts and stops electric motors; centrifugal and positive displacement pumps, bar screens, grit collectors, air compressors, conveyors and related equipment; carries out working orders in the plant or assigned unit of the plant according to the readings of meters, gauges and other control and measuring devices; maintains a shift log of unit

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operations and records readings of meters and gauges; performs water distribution system operation and maintenance duties on well pumps, mains, valves, and hydrants; performs routine maintenance duties to machinery and equipment

such as packing glands to stop leaks, lubricating equipment, changing belts, cleaning aeration and sedimentation tanks, and installing meters and taps; hoses down skimmers, cat walks and stairs; reports need for mechanical repairs; receives and stores supplies such as chlorine, sulfur dioxide, polymer, defoamant and other chemicals; performs routine laboratory tests and records data; prepares logs and reports; and performs routine laboratory tests.

### **Wastewater Plant Operator III:**

All of the duties listed above and: provides technical training, guidance and leadership to lower level classes; may be assigned responsibility for a geographical district; and assumes the duties of a Wastewater Facilities Supervisor during their absence.

### **MINIMUM QUALIFICATIONS:**

Knowledge Level: T = Thorough; G = General; --= Not Applicable

Classification Level: Tr = Wastewater Plant Operator Trainee  
I = Wastewater Plant Operator I  
II = Wastewater Plant Operator II  
III = Wastewater Plant Operator III

### **Knowledge of:**

<b><u>Tr</u></b>	<b><u>I</u></b>	<b><u>II</u></b>	<b><u>III</u></b>	
G	G	G	T	The fundamentals of laboratory equipment and methods, sample analysis and interpretation.
G	G	T	T	Wastewater treatment plant and water distribution system equipment and machinery (such as pumps, valves, electric motors, motor control centers, screening devices, flow meters, trickling filters, activated sludge process, aerobic digesters, sludge drying beds, effluent percolation beds, and spray irrigation systems).
G	G	T	T	Automatic sampling devices employed in the collection of samples for analysis.
G	T	T	T	Mathematics utilized in wastewater data analysis.
G	T	T	T	Safe work practices for wastewater treatment, water distribution and disposal plant operation.
--	G	T	T	Specific wastewater treatment and sludge processing techniques and the results to be obtained at various stages of processing.
--	G	T	T	Treatment plant operation parameters, process control procedures, techniques and policy.

### **Skills and Abilities to:**

The following apply to all classes:

- Learn and operate all phases of a wastewater treatment plant.
- Read and comprehend training manuals, diagrams and technical instructions.
- Record and interpret readings of meters and gauges and maintain operating logs.
- Perform sample collection, laboratory testing and analysis required to operate the plant with legal parameters.
- Perform mathematical calculations and data analysis involved in wastewater treatment and disposal plant operations.
- Recognize the need for plant and equipment maintenance and repair work.
- Use tools and equipment necessary to operate and maintain wastewater treatment plants, plumbing stations or related water distribution facilities.

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- Prepare written reports such as log entries, preliminary spill reports, and related forms and reports.
  - Utilize computers and application programs to enter data in spreadsheet reports.
  - Maintain accurate operational data records.
  - Meet work deadlines.
  - Communicate effectively, both orally and in writing.
- Establish and maintain cooperative working relations with those contracted during the course of work.

**Wastewater Plant Operator III (in addition to the above):**

- Provide technical training and leadership to lower level operators in the operation and maintenance tasks of primary and secondary wastewater treatment plants, wastewater collection pump stations, and small water distribution systems.

**EDUCATION/EXPERIENCE:**

Education, training and/or experience that clearly demonstrates possession of the knowledge, skills and abilities stated above. Examples of qualifying education/experience are:

**Wastewater Plant Operator Trainee:**

No experience required. Must obtain an Operator-in-Training Certificate issued by the California State Water Resources Control Board within six (6) months of appointment.

**Wastewater Plant Operator I:**

Possession of a Grade I Wastewater Treatment Plant Operator certificate; AND,

1. One (1) year of experience in the operation and maintenance of a wastewater treatment plant and/or complex pumping station facility; OR,
2. One (1) year of experience in the operation and maintenance of hydraulic pumps, electric motors, hydraulic valves and flow metering devices.

**Wastewater plant Operator II:**

Possession of a Grade II Wastewater Treatment Plant Operator certificate; AND, two (2) years of experience as a Wastewater Plant Operator I with the County of San Diego or the equivalent in another agency.

**Wastewater Plant Operator III:**

Possession of a Grade III Wastewater Treatment Plant Operator certificate; AND, three (3) years of experience as a Wastewater Plant Operator I with the County of San Diego or the equivalent in another agency.

**SPECIAL NOTES, LICENSES, OR REQUIREMENTS:**

**License:**

A valid California Class C driver's license is required at time of appointment.

**Certification:**

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Possession of a current Wastewater Treatment Plant Operator Certificate issued by the California Water Resources Control Board is required at time of appointment as follows:

Wastewater Treatment Plant Operator I	Grade I
Wastewater Treatment Plant Operator II	Grade II
Wastewater Treatment Plant Operator III	Grade III

Possession of a Water Distribution Operators (WDO) certificate issued by the State of California Department of Health Services pursuant to subsection 63770(b) of the California Health and Safety Code within one (1) year of date of hire.

**Working Conditions:**

Works outdoors in all weather conditions. Exposure to wastewater odors, chemicals and bacteria.

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